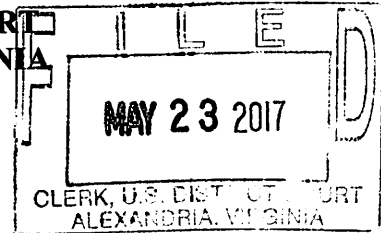


IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division



TECSEC, INC.,

Plaintiff,

v.

ADOBE SYSTEMS INC., *et al.*

Defendants.

Civil Action No. 1:10-cv-115
Hon. Liam O'Grady
Hon. Theresa Buchanan

MEMORANDUM OPINION

This matter comes before the Court on Defendant Adobe Systems Inc.'s Motion for Summary Judgment, (Dkt. No. 864), and Motion to Strike portions of the Declaration of Mark Jones. (Dkt. No. 871). Defendant seeks judgment as a matter of law that Plaintiff's asserted claims are invalid under 35 U.S.C. § 101. For the reasons discussed below, the Court DENIES the Motions.

I. Background¹

Plaintiff TecSec, Inc. accuses the Defendant of infringing on four of Plaintiff's related patents: U.S. Patent Nos. 5,369,702 (the "'702 Patent"); 5,680,452 (the "'452 Patent"); 5,717,755 (the "'755 Patent"); and 5,898,781 (the "'781 Patent") (collectively, the "DCOM Patents"). The DCOM Patents articulate a multi-level encryption method and system that allows encrypted files to be nested within other encrypted files. *See* Dkt. No. 869, Exh. 1 ("'702 Patent") at 4:25-28. "In addition to multi-level encryption, the DCOM Patents further limit

¹ The history of this case is well known to the parties and well-articulated in the prior decisions of the Court and the Federal Circuit Court of Appeals. *See, e.g., TecSec, Inc. v. Adobe Sys. Inc.*, 658 F. App'x 570, 572-75 (Fed. Cir. 2016) ("*TecSec IP*"). Accordingly, the Court limits its background to the issue presented in the present Motion.

access by using labels in the form of a field of characters attached to the encrypted files.” Dkt. No. 869, at 11.

The parties agree that claims 1 and 8 in the ‘702 Patent are representative of the asserted method and system claims, respectively, for purposes of an analysis under 35 U.S.C. § 101.

Claim 1 of the ‘702 Patent describes:

A method for providing multi-level multimedia security in a data network, comprising the steps of:

- A) accessing an object-oriented key manager;
- B) selecting an object to encrypt;
- C) selecting a label for the object;
- D) selecting an encryption algorithm;
- E) encrypting the object according to the encryption algorithm;
- F) labelling the encrypted object;
- G) reading the object label;
- H) determining access authorization based on the object label; and
- I) decrypting the object if access authorization is granted.

‘702 Patent at 12:1.

Claim 8 of the ‘702 Patent describes:

A system for providing multi-level multimedia security in a data network, comprising:

- A) digital logic means, the digital logic means comprising:
 - 1) a system memory means for storing data;
 - 2) an encryption algorithm module, comprising logic for converting unencrypted objects into encrypted objects, the encryption algorithm module being electronically connected to the system memory means for accessing data stored in the first system memory;
 - 3) an object labelling subsystem, comprising logic means for limiting object access, subject to label conditions, the object labelling subsystem being electronically connected to the system memory means for accessing data stored in the system memory means and the object labelling

subsystem being further electronically connected to the encryption algorithm module to accept inputs from the encryption algorithm module;

4) a decryption algorithm module, comprising logic for converting encrypted objects into unencrypted objects, the decryption algorithm module being electronically connected to the system memory means for accessing data stored in the system memory means; and

5) an object label identification subsystem, comprising logic for limiting object access, subject to label conditions, the object label identification subsystem being electronically connected to the system memory means for accessing data stored in the system memory means and the object label identification subsystem being further electronically connected to the decryption algorithm module to accept inputs from the decryption algorithm module;

B) the encryption algorithm module working in conjunction with the object labelling subsystem to create an encrypted object such that the object label identification subsystem limits access to an encrypted object.

‘702 Patent at 12:8.

The matter has been extensively litigated before this Court and the Court of Appeals for the Federal Circuit. Through these appeals, many of the claims in the representative patents have been construed. In 2013, the Federal Circuit Court of Appeals construed a number of the terms in the context of a 35 U.S.C. § 112 challenge. *TecSec, Inc. v. Int’l Bus. Mach. Corp.*, 731 F.3d 1336 (2013) (“*TecSec I*”). The Federal Circuit construed the terms “multi-level multimedia security”, “system memory means”, “digital logic means”, as well as other “means-plus-function” terms. *Id.* at 1344-1350. With respect to the “means” terms, the Federal Circuit found that § 112 was not implicated because the “[t]he defendants have failed to show by clear and convincing evidence that the # 702 Patent specification fails to disclose corresponding structure for the fourteen computer-implemented means-plus-function limitations.” *Id.* at 1349. Rather, the “specification disclose[d] the specific software products and how to use those products to

implement the claimed functions[.]” *Id.* Rejecting the notion that the examples amounted to “black box” software disclosures, the Federal Circuit found that “the examples here provide detailed prose that shows how the specific software products operate to implement the claimed functions.” *Id.*

In 2016, the Federal Circuit construed a number of additional terms in the representative patents in an appeal from the district court’s grant of summary judgment on non-infringement. *TecSec, Inc. v. Adobe Systems Inc.*, 658 Fed. App’x 570 (2016) (“*TecSec II*”). The Fourth Circuit construed terms for “selecting a label”, “label”, and “object-oriented key manager”.² The Federal Circuit determined that “‘selecting a label for the object’ in the DCOM patents should be given its plain meaning, without a requirement that the label exist prior to being selected.” *Id.* at 578. The Federal Circuit construed the word “label” consistent with the express definition of that term set forth in the specification of the ’702 Patent. *Id.* at 579. Further, the Federal Circuit found that “[t]he district court’s construction of ‘label,’ with which we agree, is broad enough to encompass a label which identifies different classes or groups of users authorized to access the object.” *Id.* at 580.

The Federal Circuit also “construe[d] the term ‘object-oriented key manager’ to mean ‘a software component that manages the encryption of an object by performing one or more of the functions of generating, distributing, changing, replacing, storing, checking on, and destroying cryptographic keys.’” *Id.* at 582. The Federal Circuit rejected Defendant-Appellee’s argument that it did not infringe the “object-oriented key manager.” *Id.* The court found that it could not “conclude as a matter of law that Adobe is entitled to summary judgment of non-infringement” because “Adobe’s Acrobat products include a security handler in the form of a software module

² The Federal Circuit did not disturb the district court’s construction of “object”, “access authorization”, or “display header”.

which implements various aspects of the encryption process and controls access to the contents of encrypted documents.” *Id.*

Following the Federal Circuits remand to this Court in *TecSec II*, Defendant moved under 35 U.S.C. § 101 for a finding that the DCOM Patents are directed to impermissibly abstract subject matter, do not contain an inventive concept, and are therefore invalid as a matter of law.

II. Legal Standard

35 U.S.C. § 101, states that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvements thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” Courts have read this provision to contain implicit exceptions for abstract ideas, laws of nature, and natural phenomena. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S.Ct. 2347, 2354 (2014) (citation omitted). These three exceptions are the “basic tools of scientific and technological work . . . [and] monopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it . . .” *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012)).

The § 101 eligibility inquiry proceeds in two steps. *Id.* at 2355. First, the court determines whether the patents at issue are directed to an abstract idea, law of nature, or natural phenomenon. *Id.* If they are not directed to one of these excepted classes of subject matter, the inquiry ends. *Id.* If their focus is on one of these categories, however, the court proceeds to the second step, where it “consider[s] the elements of each claim both individually and as an ordered combination to determine whether the additional elements provide an ‘inventive concept’ that ensures the patent “in practice amounts to significantly more than a patent upon the [abstract idea] itself.” *Id.* (quotations and citations omitted). If the claims do not sufficiently narrow the

scope of the patent by providing this “inventive concept,” then the patent is rendered ineligible. *Id.*

Patent eligibility under 35 U.S.C. § 101 is a question of law. *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015). Patent eligibility may be decided on a motion for summary judgment. *See, e.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) (affirming grant of summary judgment on § 101 eligibility determination). A “plausible claim for relief in a patent infringement case necessarily requires a valid patent. [Without one,] there can be no infringement.” *Intellectual Ventures I LLC v. Erie Indem. Co.*, No. 2:14-CV-220, 2016 WL 4147300, at *3 (W.D. Pa. Aug. 4, 2016) (citing *In re Bilski*, 545 F.3d 943, 851 (Fed. Cir. 2008), *aff’d sub nom Bilski v. Kappos*, 561 U.S. 593 (2010)).

III. Discussion

For the reasons discussed below, the Court finds that the DCOM Patents are not directed to an abstract idea, law of nature, or natural phenomenon. This finding ends the § 101 analysis and merits judgment in favor of the Plaintiff. *See Alice*, 134 S.Ct. at 2354 (2014).

Defendant contends that the claims of the DCOM Patents recite functions, such as encrypting/decrypting, labelling, embedding, and determining access authorization, along with generic computing and programming components. In Defendant’s view “the claims are disembodied from any particular, let alone new, manner of achieving the results of these functions.” Dkt. No. 865 at 15. Specifically, Defendant argues that multi-level . . . security” term, as construed by the Federal Circuit, impermissibly provides no restriction on how the result of that security and nesting of files is accomplished. *Id.* Defendant also argues that the claims fail to specify how labels are selected, applied, or how the “object-oriented key manager” performs its functions. *Id.* at 17. Defendant highlights that the district court previously

remarked that the DCOM Patents are “exceptionally broad, and provide little detail regarding how a person of ordinary skill in the art would implement the claimed invention.” Dkt. No. 772 at 12 n. 10. Finally, Defendant argues that the claims are not targeted to a computer-specific problem. Rather, they are analogous to placing a document in two different sealed envelopes in order to produce multi-level security.

Plaintiff counters that Defendant has grossly generalized the DCOM Patents. Plaintiff contends that the express language of the claims, the detailed specification, and the Federal Circuit’s claim constructions evince the specific and concrete nature of the DCOM Patents. Specifically, Plaintiff avers that the DCOM Patents describe a specific way of performing encryption and the nesting of multiple encryptions which is both patent-eligible and not addressed by prior art. Furthermore, Plaintiff notes that the DCOM Patents do not preempt the entire field of managing objects using multiple levels of encryption. Rather, the DCOM Patents include limitations such as the use of an “object-oriented key manager.” Plaintiff argues that there are other ways to achieve multiple levels of encryption without resort to the method represented in the DCOM Patents.

The Court recently conducted a detailed § 101 analysis in *Virginia Innovation Scis. Inc. v. Amazon.com, Inc.*, 2017 WL 64147, at *1 (E.D. Va. Jan. 5, 2017). In that case, the Court found that a family of patents that cover a method, system, and apparatus for transferring video signals from a network to a mobile device and then converting those signals in a manner that allows them to be reproduced on an “alternative display terminal” were not directed to patent-eligible subject matter. *Id.* The Court noted that “[a]rticulating the scope of a patent’s subject matter is not a precise science. Courts must be careful not to overgeneralize claims because, ‘if carried to its extreme, [it would make] all inventions un-patentable because all inventions can be

reduced to underlying principles of nature.” *Id.* at *5 (quoting *Diamond v. Diehr*, 450 U.S. 175, 189 n.12 (1981)). The Court further observed that “courts have held repeatedly that a patent-holder ‘must do more than merely show . . . an unconventional idea, they must show an unconventional *embodiment* of that idea.’” *Id.* at *8 (quoting *Netflix, Inc. v. Rovi Corp.*, 114 F.Supp.3d 927, 940 (N.D. Cal. 2015), *aff’d* No. 2015–1917, — Fed.Appx. —, —, 2016 WL 6575091 at *1 (Fed. Cir. Nov. 7, 2016) (emphasis in original)). Finally, the Court recognized that “[p]reemption is the touchstone of the § 101 inquiry.” *Id.*

The Court applied these principles and found that the family of patents in *Virginia Innovation Sciences* was targeted to an abstract idea. The Court reasoned that because the “claims encompass every mobile telephone, every video signal received by that phone, and every HD display terminal sold on the market” they impermissibly preempted an entire field of ideas. *Id.* at *10. Furthermore, the Court found that the patents were not targeted to an inherently digital function: “One could imagine performing the same function through a projection or magnification device.” *Id.* Thus, the patents amounted to “performing abstract ideas in a digital medium rather than creating solutions to computer-centric problems.” *Id.*

By contrast, Plaintiff has adequately pleaded in this case that the patents create a solution to a computer-centric problem which is not addressed by the prior art. Despite Defendant’s assertions, the claims are not reducible to putting a sealed envelope (single-level encryption) into a second sealed envelope (multi-level encryption) for extra security. Rather, the claims provide a specific solution to implementing the multiple levels of nested security through the “object-oriented key manager.” They offer a solution to a problem, multiple users in multiple locations accessing information at different security levels from a central repository, which would not exist but for the ubiquity of computer technology. This difference distinguishes the DCOM Patents

from the family of patents at issue in *Virginia Innovation Sciences* which the Court found analogous to physical projection or magnification. See *Virginia Innovation Scis. Inc.*, 2017 WL 64147, at *10 (finding patents invalid which “are akin to performing abstract ideas in a digital medium rather than creating solutions to computer-centric problems.”).

With respect to preemption, the DCOM Patents are again readily distinguishable from the overbroad patents in *Virginia Innovation Sciences*. There, the holder of the patent offered no information about the specific functions of the terminal to convert digital information from one medium to another. Thus, the broad language of the patent swept up “[p]ast, present, and future models” of the idea. *Id.* Here, Plaintiff does not allege that their patents foreclose all forms of multi-level security. Rather, the DCOM Patents preempt systems which make use of the specific method of an “object-oriented key manager.” Defendant has also previously argued that the patent term does not preempt all multi-level encryption methods. Defendant represented to the Federal Circuit that its Acrobat software did not infringe the “object-oriented key manager” term because “Acrobat does not store or distribute any keys” in its multi-level encryption system. *TecSec II*, 658 Fed. App’x at 581.

The Federal Circuit and district court claim construction reinforces the distinctions with *Virginia Innovation Sciences*. See *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (“The § 101 inquiry must focus on the language of the Asserted Claims themselves.”). While the district court previously opined that the DCOM Patents are “exceptionally broad, and provide little detail regarding how a person of ordinary skill in the art would implement the claimed invention[,]” see Dkt. No. 772 at 12 n. 10, the Federal Circuit vacated and remanded that decision. See *TecSec II*, 658 F. App’x at 585. In the same opinion, the Federal Circuit found that fact issues existed as to whether Defendant’s use of a software

“security handler” to control the encryption process constituted an “object-oriented key manager” encryption system. *Id.* at 582. To reach this conclusion, the Federal Circuit not only had to construe “object-oriented key manager” in order to compare it to the technology employed by the Defendant, but also had to recognize that some, but not all, multi-level encryption methods could infringe the DCOM Patents.

The Federal Circuit’s findings in 2013 are stronger evidence still that the DCOM Patents are not abstract. In construing the claim limitations that employ the term “means” the court found that “the specification discloses the specific software products and how to use those products to implement the claimed functions” *TecSec I*, 731 F.3d at 1349.³ The Federal Circuit favorably cited three examples of the precise implementation of the “object-oriented key manager” software with respect to word-processing applications. *Id.* The Court also rejected the argument that these examples only disclosed generic software. Rather, the Court found that “short of providing source code, it is difficult to envision a more detailed disclosure” than the examples provided by the Plaintiff. *Id.*

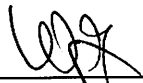
The decisions of the Federal Circuit confirm that the DCOM Patents are addressed to a computer-specific problem. Furthermore, the particular method of encryption identified in the patents is manifest in some computer application examples but does not foreclose the entire field of computer encryption. For these reasons, the DCOM Patents are directed to an inventive concept and are not impermissibly abstract. Consequently, summary judgment pursuant to 35 U.S.C. § 101 is not warranted.

³ While the relevant portion of *TecSec I* addressed indefiniteness pursuant to 35 U.S.C. § 112, the analysis is germane to the § 101 inquiry. Pursuant to § 112, “[c]omputer-implemented means-plus-function claims are indefinite unless the specification discloses an algorithm to perform the function associated with the limitation.” *Noah Sys.*, 675 F.3d at 1319. [S]imply disclosing a black box that performs the recited function “is not a sufficient explanation of the algorithm required to render the means-plus-function term definite.” *In re TLI Commc’ns LLC Patent Litig.*, 87 F. Supp. 3d 773, 800 (E.D. Va. 2015), *aff’d*, 823 F.3d 607 (Fed. Cir. 2016) (quoting *Augme*, 755 F.3d at 1338). Similarly, this Court has held that a “black box” patent for video technology was abstract under § 101. *See Virginia Innovation Scis. Inc.*, 2017 WL 64147, at *10.

IV. Conclusion

For the foregoing reasons, the Court DENIES the Motion for Summary Judgment. (Dkt. No. 864). The Court further DENIES Defendant's Motion to Strike portions of the Declaration of Mark Jones. (Dkt. No. 871).

May 23, 2017
Alexandria, Virginia



Liam O'Grady
United States District Judge